Rapid Prototyping

U N I V E R S I T Y O F U T A H

CENTER

The Center for Rapid Prototyping is focused in the areas of ultrasonic sensing of injection molding, and physical and virtual geometric modeling for computer aided design.

TECHNOLOGY

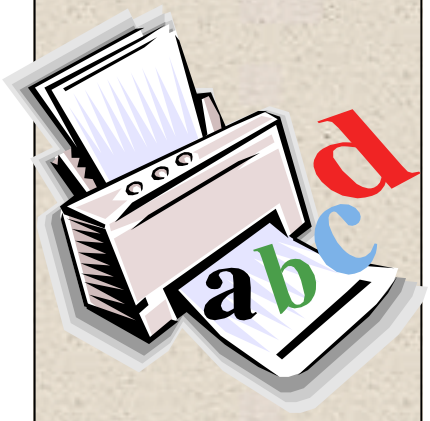
The Center for Rapid Prototyping works on several projects including: machining techniques that allow prototyping of geometric objects of arbitrary complexity on a 3 axis CNC mill with limited tools and little operator skill required; a series of new sensors and control techniques for improved polymer processing; a Personal Prototyping System (PPS) that makes rapid prototyping affordable for small companies and perhaps even the average consumer; low cost 3D scanning technologies that make acquisition of 3D geometric data practical and affordable for reverse engineering, medical imaging/reconstruction, etc.; a device that is capable of producing very large prototypes (Shapemaker); a photopolymer based technique to create prototypes in a single step (Inverse Tomographic Construction). New micro and nano-scale polymer manufacturing techniques have been developed to include a micro forging technique and a nano scale injection molding machine.

ACCOMPLISHMENTS

In the second year of funding, several milestones were met including the production of the first micro-scale injection molded part, the first successful machine scan of the human face and completed a production-type prototype of high temperature ultrasound transducer and control system. The Center for Rapid Prototyping also conducted a market survey for the 3D Scan Machine franchise concept.

THINK TANK

What if there was...



A personal prototyping system that develops and creates prototypes at a very low cost on your own inkjet or laser jet printer???

Charles Thomas
University of Utah
50 S Central Campus Dr.
RM 2202
SLC, UT 84112
801-585-6939
cthomas@eng.utah.edu